What is claimed is:

1. A touch sensor comprising:

an electrically resistive film covering a touch sensitive area;

two or more substantially parallel polygonal rows of electrically conductive segments separated by gaps disposed on the resistive film and surrounding the touch sensitive area, each edge of each row having one or more middle electrically conductive segments disposed between two end electrically conductive segments, a first middle conductive segment in one of the rows fully overlapping a second middle conductive segment in an adjacent row, the overlapping portions of the first and second middle conductive segments defining a full overlap region; and

a first discrete electrically insulative segment disposed in the resistive film in the full overlap region to increase electrical resistance between the first and second middle conductive segments.

2. The touch sensor of claim 1, wherein an electric field in the touch sensitive area is linearized to within 0.5%.

3. The touch sensor of claim 1 further comprising electronics configured to detect a location of an input touch applied to the touch sensitive area.

4. The touch sensor of claim 1 further comprising one or more additional discrete electrically insulative segments disposed in the resistive film in the full overlap region.

5. The touch sensor of claim 1, wherein the electrically insulative segment is confined to the full overlap region.

6. The touch sensor of claim 1, wherein the electrically insulative segment extends outside the full overlap region.

7. The touch sensor of claim 1, wherein an electrically insulative segment closer to an outermost row is longer than an electrically insulative segment farther from the outermost row.

8. The touch sensor of claim 1 further comprising:

a third conductive segment in one of the rows partially overlapping a fourth conductive segment in an adjacent row, the overlapping portions of the third and fourth conductive segments defining a partial overlap region; and

a second discrete electrically insulative segment disposed in the resistive film in the partial overlap region.

9. The touch sensor of claim 1 further comprising:

a first gap in one of the rows overlapping a fifth conductive segment in an adjacent row, the overlapping portions of the first gap and the fifth conductive segment defining a no overlap region; and

a third discrete electrically insulative segment disposed in the resistive film in the no overlap region.

10. An optical system for displaying information to a viewing position including the touch sensor of claim 1.

11. A touch sensor comprising:

an electrically resistive film covering a touch sensitive area;

two or more substantially parallel polygonal rows of discrete electrically conductive segments disposed on the resistive film and surrounding the touch sensitive area, each edge of each row having one or more middle electrically conductive segments disposed between two end electrically conductive segments, a first middle conductive segment in one of the rows fully overlapping a second middle conductive segment in an adjacent row; and

a first discrete electrically insulative segment disposed between the first middle conductive segment and the resistive film to increase electrical resistance between the first and second middle conductive segments.

12. The touch sensor of claim 10 further comprising electronics configured to detect a location of an input touch applied to the touch sensitive area.

13. The touch sensor of claim 10, wherein a portion of the electrically insulative segment is not covered by the first middle conductive segment.

14. A touch sensor comprising:

an electrically resistive film; and

two substantially parallel rows of discrete conductive segments disposed on the resistive film; gaps separating adjacent discrete conductive segments in each row; a first conductive segment in one row fully overlapping a second conductive segment in the other row, the overlap region between the first and second conductive segments defining a full overlap region; a first gap in one row overlapping a third conductive segment in the other row, the overlap region between the first gap and the third conductive segment defining a no overlap region; each of the full and no overlap regions including at least one discrete electrically insulative segment.

15. The touch sensor of claim 14, wherein at least one of the at least one discrete electrically insulative segment is a void region in the resistive film.

16. The touch sensor of claim 14, wherein at least one of the at least one discrete electrically insulative segment is disposed between the resistive film and one of the first, second, and third conductive segments.

17. A touch sensor comprising:

an electrically resistive film covering a touch sensitive area;

a linearization pattern disposed on the resistive film peripheral to the touch sensitive area for linearizing an electric field in the touch sensitive area, the linearization pattern having multiple sides and configured to conduct a parallel electrical current and a perpendicular electrical current at a local region within a side of the linearization pattern, the parallel current flowing in a direction parallel to the side of the linearization pattern at the local region, the perpendicular current flowing in a direction perpendicular to the side of the linearization pattern at the local region; and

at least one discrete electrically insulative segment disposed within the local region, the insulative segment substantially affecting the perpendicular current for controlling a voltage distribution along the side of the linearization pattern without substantially affecting the parallel current.

18. The touch sensor of claim 17, wherein the linearization pattern includes two or more parallel rows of discrete electrically conductive segments, each row having one or more middle electrically conductive segments disposed between two end

electrically conductive segments, a first middle conductive segment in a row fully overlapping a second middle conductive segment in an adjacent row, the local region being the over lap region between the first and second middle conductive segments.

19. A touch sensor comprising:

an electrically resistive film covering a touch sensitive area;

a polygonal linearization pattern disposed on the resistive film peripheral to the touch sensitive area for linearizing an electric field in the touch sensitive area, the linearization pattern having multiple sides, and configured to provide a parallel voltage gradient and a perpendicular voltage gradient in a local region within a side of the linearization pattern, the parallel voltage gradient being in a direction parallel to the side of the linearization pattern at the local region, the perpendicular voltage gradient being in a direction perpendicular to the side of the linearization pattern at the local region; and

at least one discrete electrically insulative segment disposed within the local region, the insulative segment substantially affecting the perpendicular voltage gradient for controlling a voltage distribution along the side of the linearization pattern without substantially affecting the parallel voltage.

20. The touch sensor of claim 19, wherein the perpendicular voltage gradient is affected more when the local region is farther from the midpoint of the side than when the local region is closer to the midpoint of the side.

21. The touch sensor of claim 19, wherein the perpendicular voltage gradient is greater when the local region is farther from the midpoint of the side than when the local region is closer to the midpoint of the side.

22. A touch sensor comprising:

an electrically resistive film covering a touch sensitive area;

two or more substantially parallel polygonal rows of electrically conductive segments separated by gaps disposed on the resistive film and surrounding the touch sensitive area, each edge of each row having one or more middle electrically conductive segments disposed between two end electrically conductive segments, a first middle conductive segment in a first row fully

overlapping a second middle conductive segment in a second row adjacent to the first row, the overlapping portions of the first and second middle conductive segments defining a full overlap region; a first gap in a third row overlapping a third conductive segment in a fourth row adjacent to the third row, the overlap region between the first gap and the third conductive segment defining a no overlap region; and

means for increasing the electrical resistance of at least one of the full and no overlap regions, the electrical resistance in the full overlap region being measured between the first and second middle conductive segments, the electrical resistance in the no overlap region being measured between the first gap and the third conductive segment.

23. The touch sensor of claim 22, wherein the means includes one or more electrically insulative segments disposed in the electrically resistive film within at least one of the full and no overlap regions.